

THECB Board Meeting Predictive Modeling April 2017

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4/17/2017 www.sanjac.edu 1

History

- 2011: Initial logistic regression models built using Base SAS programming to predict FTIC fall to spring persistence
- Limitations:
 - Extensive Coding = Time Consuming
 - Doesn't lend itself to collaboration
 - Editing the model requires re-parameterization
- AtD Data Coach, Dr. Jing Luan, suggested SAS Enterprise Miner



4/17/2017 www.sanjac.edu 2

SAS Enterprise Miner

- 2014: Used SAS Enterprise Miner to build decision-tree models for predicting FTIC fall to spring persistence
- Benefits:
 - Less time coding = More time for analysis
 - Easy to collaborate
 - Build models in-house
 - Editing models is relatively quick
 - Low cost: SAS Enterprise Miner ~ \$1500/license/year;
Base SAS programming software ~ \$800/license/year
- Used results to identify our most at-risk students

On-going and Future Work

- Currently Building:
 - Model to identify FTIC students at risk of failing or withdrawing from all courses in first term
 - Math pathways models to identify best math course for FTIC student success
 - Interactive tool that incorporates model results with student information system (SIS) data
- Future Work:
 - Using predictive modeling to identify optimal combinations of student interventions and faculty professional development
 - Incorporating non-cognitive measures into models

